

# RESEARCH and analyses

Analysis, Public and Legal Affairs

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## HIGHLIGHTS

- Between 2000 and 2006, CIHR received approximately 850 applications a year on average for its Fellowship Program.
- Nearly 220 of the 850 applications received were from applicants who had chosen an institution of affiliation located in Québec.
- Québec institutions' share of applications received declined throughout the period studied (from 28% to 24%).
- By extension, their share of awards also decreased. Between 2000 and 2002, the Québec share of awards was 20% a year on average. For the four subsequent years, it was only 15%.
- Applicants in the "Other" category, especially those with a foreign institution of affiliation, accounted for an ever-increasing share of applications received and awards alike.
- In 2006, nearly half of the fellowships awarded were to applicants in this category.
- These applicants systematically maintained success rates above the national average throughout 2000-2006.

## COMPARATIVE STUDIES

### Trends in the distribution of CIHR Fellowship Program applications and awards from 2000 to 2006

*Me Cédric Pautel, M.A.P., Director – Analysis, Public and Legal Affairs*

Within the Canadian federation, Québec is renowned for the excellence of its research centres, groups and networks and for the competitiveness of their researchers in the health field. Québec researchers and students are usually considered to score excellent results at federal granting agency competitions. This study, which is part of a series of studies on CIHR scholarship and fellowship programs, presents data on the distribution of the number of applications received, applications recommended for award, and awards under the Canadian Institutes of Health Research (CIHR) Fellowship Program. Based on the applicants' university of affiliation, the study makes it possible to measure the capability of Québec research institutions to attract federal postdoctoral merit awardees in the health field and to compare Québec's performance in this respect with that of other Canadian provinces.

## MAIN RESULTS

The proportion of applicants with an institution of affiliation in Québec experienced a downswing and these applicants did not perform as well in competitions:

- The proportion of applicants who chose an institution located in Québec was on average 27% a year between 2000 and 2003. For 2004 to 2006, this proportion dropped to 25%.
- Between 2000 and 2006, applicants who chose an institution located in Québec obtained recommendation and success rates below the national average.
- In the last two years of the period concerned, recommendation rates drew closer to the average.

Inversely, there were more and more applicants bound for foreign institutions and their recommendation and success rates were consistently above the national average:

- Applicants who chose a foreign institution along with those who chose a Canadian institution not located in Québec, Ontario, Alberta or British Columbia were the second biggest cohort for applications received.
- For the entire period concerned, they were first in terms of awards and their share was always on the rise. In 2006, they represented nearly half of CIHR awards, with 47%.
- The increased share of applicants in this category meant an equivalent decrease in the share of applicants with institutions located in Québec, British Columbia and Alberta. Only institutions in Ontario managed to maintain their position in term of awards.

## Distribution of applications received

During the period covered, the number of applications received for the CIHR Fellowship Program ranged roughly from 700 to 1000.

Between 2000 and 2003, CIHR received an annual average of 753 applications, 204, or 27%, of which were from applicants who had chosen a Québec institution. From 2004 to 2006, the average number of applications received per year increased by 970, including 239, or 25%, for Québec institutions.

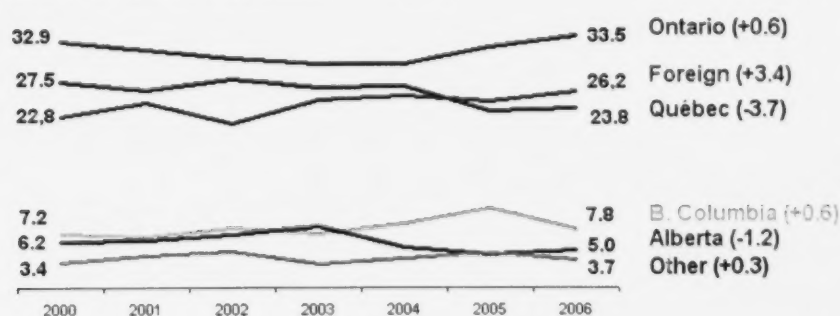
From 2000 to 2006, Québec institutions' share decreased (from 28% to 24%), while that of institutions in Ontario gained ground in 2004 to reach 34% in 2006. British Columbia's share, in the vicinity of 8% on average, remained fairly stable, as did that of Alberta, with an average of 6%.

The "Other" category, comprised of applicants who chose an institution in another Canadian province or abroad, accounted for 29% of all applications received for the period 2000 to 2006. Applicants bound for institutions abroad alone represented 25% of applications received, with the remaining 4% from Canadian provinces for which no specific data were presented.

TABLE 1 – Applications received (MFE)

	APPLICATIONS RECEIVED													
	2000		2001		2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
British Colum-bia	55	7.2	49	6.9	67	7.9	50	7.3	78	8.5	107	10.5	76	7.8
Alberta	47	6.2	45	6.3	60	7.1	56	8.2	50	5.4	46	4.5	48	5.0
Ontario	250	32.9	226	31.7	260	30.6	204	29.7	275	29.8	326	32.0	325	33.5
Québec	209	27.5	188	26.3	237	27.8	183	26.7	248	26.9	239	23.5	231	23.8
Other prov.	26	3.4	30	4.2	41	4.8	21	3.0	36	3.9	48	4.8	36	3.7
Foreign	174	22.8	176	24.6	186	21.8	172	25.1	236	25.5	252	24.7	253	26.2
Total	761	100.0	714	100.0	851	100.0	686	71.9	923	100.0	1018	100.0	969	100.0

FIGURE 1 – Distribution of applications received (MFE)



## Distribution of applications recommended for award

Historically, the recommendation rates for the CIHR Fellowship Program have varied widely from province to province and from year to year. However, for the last three years of the period concerned, they tended to stick close to the Canadian average (Figure 2).

Applicants who chose an institution located in Québec regularly recorded recommendation rates below the national average for 2000 to 2006 (Table 3). The difference between Québec's rates of recommendation and the national average at times reached 10 percentage points. However, in the last two years of the period studied, numbers approached the average.

At the same time, applicants who chose an institution outside Canada systematically obtained recommendation rates above the national average. However, the difference with the average narrowed towards the end of the period and any advantage seemed to be disappearing (Figure 2).

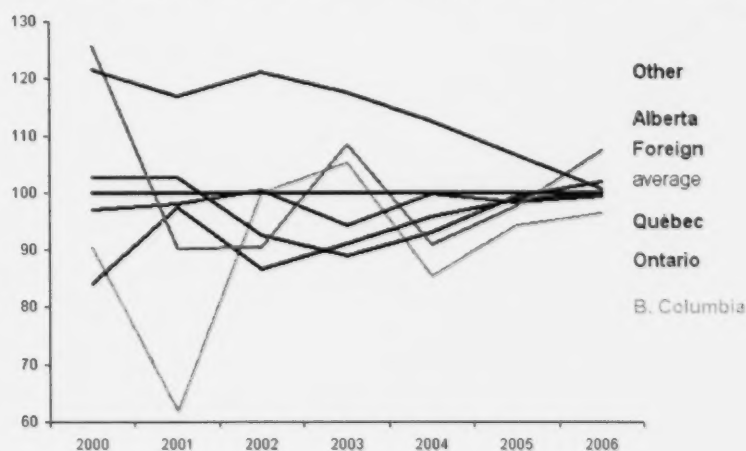
TABLE 2 – Applications recommended for award (MFE)

	APPLICATIONS RECOMMENDED FOR AWARD													
	2000		2001		2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
British Columbia	32	6.5	19	4.2	47	7.9	37	7.7	53	7.2	86	9.9	72	7.6
Alberta	31	6.3	29	6.5	39	6.5	35	7.3	37	5.0	39	4.5	48	5.0
Ontario	156	31.9	139	31.0	183	30.7	135	28.0	218	29.7	273	31.5	317	33.3
Québec	113	23.1	115	25.7	144	24.1	117	24.3	189	25.7	201	23.2	227	23.8
Other prov.	21	4.3	17	3.8	26	4.3	16	3.3	26	3.5	40	4.6	38	3.9
Foreign	136	27.9	129	28.8	158	26.5	142	29.4	211	28.9	229	26.3	250	26.4
<b>Total</b>	<b>489</b>	<b>100.0</b>	<b>448</b>	<b>100.0</b>	<b>597</b>	<b>100.0</b>	<b>482</b>	<b>100.0</b>	<b>734</b>	<b>100.0</b>	<b>868</b>	<b>100.0</b>	<b>952</b>	<b>100.0</b>

TABLE 3 – Rates of recommendation (MFE)

	RATES OF RECOMMENDATION (applications recommended for award/applications received)						
	2000	2001	2002	2003	2004	2005	2006
British Columbia	58.2%	38.8%	70.1%	74.0%	67.9%	80.4%	94.7%
Alberta	66.0%	64.4%	65.0%	62.5%	74.0%	84.8%	100.0%
Ontario	62.4%	61.5%	70.4%	66.2%	79.3%	83.7%	97.5%
Québec	54.1%	61.2%	60.8%	63.9%	76.2%	84.1%	98.3%
Other prov.	80.8%	56.7%	63.4%	76.2%	72.2%	83.3%	105.6%
Foreign	78.2%	73.3%	84.9%	82.6%	89.4%	90.9%	98.8%
National average	64.3%	62.7%	70.2%	70.3%	79.5%	85.3%	98.2%

FIGURE 2 – Rates of recommendation - Difference with the national average, base 100 (MFE)



## Distribution of awards

During the period from 2000 to 2006, the total number of awards varied drastically. On average, CIHR granted 169 awards a year during this period. In addition to annual variations, the number of awards declined throughout this time period. Between 2000 and 2003, CIHR granted an average of 174 awards per year, but starting in 2004, the number dropped to 163 per year on average (Table 4).

For the entire period from 2000 to 2006, applicants who chose an institution located in Québec accounted for approximately 18% of awards, ahead of British Columbia (7%) and Alberta (5%). The two biggest contingents were composed of applicants bound for an Ontario institution (with 30%) and those in the "Other" category (with 40% - Table 4).

Trends in the distribution of awards in the period covered show that applicants in the "Other" category gained increasingly in terms of awards. In 2006, with 47%, they represented close to half the CIHR-funded applicants. This increase meant an equivalent decrease in the share of applicants with institutions located in Québec, British Columbia and Alberta. For its part, Ontario held steady (Figure 3).

Analysis of the success rates highlights the strength of the cohort formed of applicants in the "Other" category, who systematically obtained annual success rates above the Canadian average. A few rare exceptions notwithstanding, the success rates for the four other categories were regularly below the average (Table 5 and Figure 4). Given that data are based on the province in which applicants' institution of affiliation is located, each of the categories could include a certain number of applicants from Québec and from each of the other Canadian provinces.

TABLE 4 – Awards (MFE)

	AWARDS													
	2000		2001		2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
British Colum-bia	23	9.5	6	3.8	11	7.0	7	5.1	14	8.1	12	7.0	6	4.1
Alberta	15	6.2	4	2.5	4	2.5	14	10.3	7	4.0	9	5.3	3	2.1
Ontario	74	30.6	55	34.4	50	31.6	35	25.7	51	29.5	52	30.4	44	30.3
Québec	44	18.2	32	20.0	33	20.9	29	21.3	24	13.9	26	15.2	24	16.6
Other prov.	6	2.5	4	2.5	3	1.9	4	2.9	8	4.6	4	2.3	5	3.4
Foreign	80	33.0	59	36.8	57	36.1	47	34.7	69	39.9	68	39.8	63	43.5
<b>Total</b>	<b>242</b>	<b>100.0</b>	<b>160</b>	<b>100.0</b>	<b>158</b>	<b>100.0</b>	<b>136</b>	<b>100.0</b>	<b>173</b>	<b>100.0</b>	<b>171</b>	<b>100.0</b>	<b>145</b>	<b>100.0</b>

FIGURE 3 – Distribution of awards (MFE)

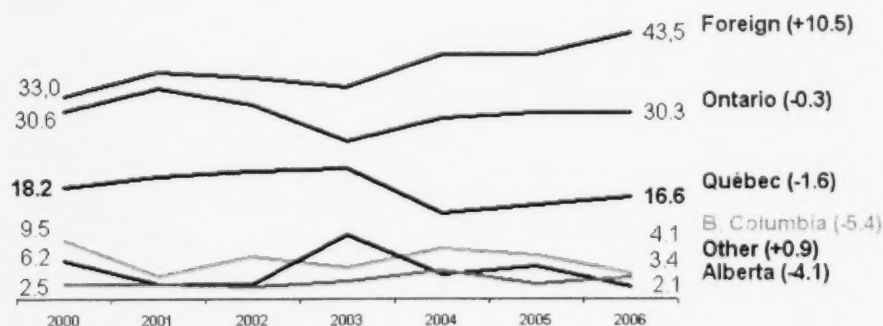
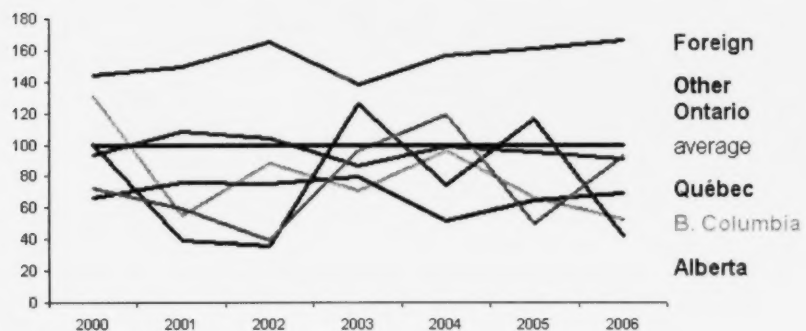


TABLE 5 – Success rates (MFE)

	SUCCESS RATES (Awards/Applications received)						
	2000	2001	2002	2003	2004	2005	2006
British Columbia	41.8%	12.2%	16.4%	14.0%	17.9%	11.2%	7.9%
Alberta	31.9%	8.9%	6.7%	25.0%	14.0%	19.6%	6.3%
Ontario	29.6%	24.3%	19.2%	17.2%	18.5%	16.0%	13.5%
Québec	21.1%	17.0%	13.9%	15.8%	9.7%	10.9%	10.4%
Other prov.	23.1%	13.3%	7.3%	19.0%	22.2%	8.3%	13.9%
Foreign	46.0%	33.5%	30.6%	27.3%	29.2%	27.0%	24.9%
National average	31.8%	22.4%	18.6%	19.8%	18.7%	16.8%	15.0%

FIGURE 4 – Success rates – Difference with the national average, base 100 (MFE)



## Methodological notes

Data concerning the Fellowship Program were provided by the Canadian Institutes of Health Research (CIHR). In the absence of data about the province of origin of the applicant, the data refer to the province of the applicant's institution of affiliation (the institution to which the award amount is issued). The "Other" category contains data for the institutions located in Canadian provinces for which no specific data were presented, and data for institutions located outside of Canada. Given the lack of volume for institutions located in Canadian provinces for which no specific data is presented, the data provided by CIHR for the "Other" category may sometimes contain numbers for applications recommended for award higher than the number of applications received.

The data on doctoral students in the health field were provided by the Ministère du Développement économique, de l'Innovation et de l'Exportation. They comprise data for 2003-2004 for full-time students in the following university programs: 1) health- and clinical science-related professions; 2) residency programs in medicine, dentistry, and veterinary medicine (even though veterinary medicine cannot be excluded from the category of residency programs, it accounts for a very small proportion thereof); 3) psychology; and 4) biological and biomedical sciences.

